

IN THE CLAIMS:

The following is a complete listing of claims in this application.

Claims 1-12 (canceled).

13. (currently amended) In a process for determining the form of a duplicate of a residual tooth area which is to be fitted with a dental restoration, in which duplicate sections to be fitted with the dental restoration and/or duplicate sections determining dental restoration geometry are removed from the duplicate and form data to be allocated to the forms of the duplicate sections is determined and stored in a computer, by means of which the form of the dental restoration is calculated taking into consideration the spatial allocation of the duplicate sections,

the improvement comprising storing in a computer a referencing of a ~~support means~~ base plate for the duplicate or a referencing on the duplicate produced during fabrication of the duplicate,

separately placing sections of the duplicate or sections of the duplicate together with corresponding sections of the ~~support means~~ base plate connected thereto in a holding device and determining with a sensor, geometry of each duplicate or duplicate/~~support means~~ base plate section,

individually referencing the duplicate sections as to spatial allocation to each other in the referencing stored in the computer, and which is independent of the duplicate, and

comparing the referencing stored in the computer with the separately determined duplicate or duplicate/~~support means~~ base plate sections to determine the form of the duplicate of the residual tooth area.

14. (currently amended) Process according to claim 13, comprising the steps of:

- taking a casting of at least one of the residual tooth areas comprising part of the jaw;

- fabricating the duplicate by filling the casting with plaster;

mounting the duplicate on the ~~support means~~ base plate, where the ~~support means~~ base plate or the duplicate has ~~having~~ references thereon which ~~are~~ is stored in the computer;

- splitting the ~~support means~~ base plate with the duplicate mounted thereon to obtain the duplicate/~~support means~~ base plate sections;

- performing said separately placing step, followed by said determining step, thereby measuring the duplicate/~~support means~~ base plate sections for capturing form data and the references provided on the respective ~~support means~~ base plate sections or the duplicate sections;

- performing said individually referencing step, thereby matching up data, which correspond to the references of the ~~support means~~ base plate sections or the duplicate sections, with the referencing data stored in the computer; and

- fabricating a dental restoration under consideration of the form data and the data gained by said matching.

15. (currently amended) Process according to claim 14, wherein the duplicate is directly provided with the references.

16. (previously presented) Process according to claim 15, wherein the references are produced when making the casting.

17. (previously presented) Process for determining the form of a duplicate of a residual tooth area which is to be fitted with a dental restoration, comprising the steps of:

taking a casting from at least one residual teeth area of a jaw to be fitted with a dental restoration,

fabricating a model from the casting as the duplicate by filling the casting with plaster,

attaching the duplicate to a base plate, where the duplicate or the base plate has references thereon,

splitting the base plate with the duplicate attached

thereto apart to obtain duplicate/base plate sections,

measuring the duplicate/base plate sections taking into consideration the references from the base plate sections, onto which the duplicate sections are arranged, or the references from the duplicate sections,

storing in a computer a referencing of the base plate for the duplicate or a referencing on the duplicate produced during fabrication of the duplicate, which is independent of the duplicate and

individually referencing the duplicate/base plate sections as to spatial allocation to each other in the referencing stored in the computer, and which is independent of the duplicate.

18. (previously presented) Process according to claim 17, wherein geometrical properties of the base plate and/or markings are used as the references.

19. (previously presented) Process according to claim 18, wherein the base plate contains points and/or lines as the markings.

20. (previously presented) Process according to claim 18, wherein the base plate contains geometrical properties delimitations in the form of edges or surface sections.

21. (previously presented) Process according to claim 17, additionally comprising surface grinding the duplicate on an underside and attaching the underside to a planar surface of the base plate following a tooth arc.

22. (previously presented) Process according to claim 21, wherein the duplicate is attached to the base plate such that the duplicate is spaced on all sides from an edge of the base plate.

23. (previously presented) Process according to claim 17, wherein the base plate exhibits along a longitudinal wall running along the duplicate, a texture.

24. (previously presented) Process according to claim 23,

wherein the texture is a wave-shaped and/or zigzag geometry.

25. (previously presented) Process according to claim 24, wherein intersections or virtual interfaces of peripheries of the wave-shaped and/or zigzag geometry are used as the references.

26. (previously presented) Process according to claim 17, wherein references are applied directly to the casting.

Claim 27 (canceled).